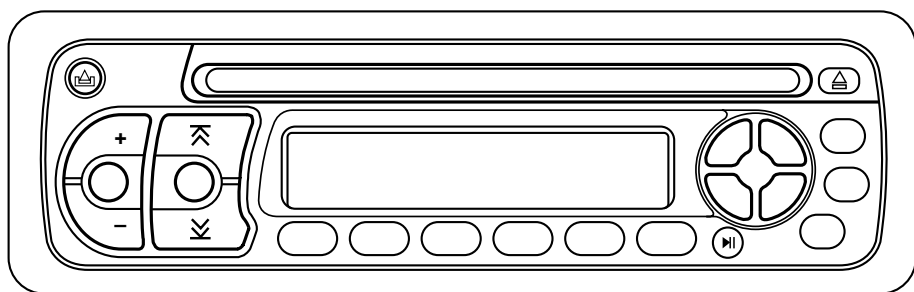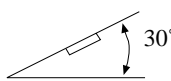# METRIK

MCD-479

OWNER'S MANUAL

**PLL SYNTHESIZER STEREO RADIO WITH
COMPACT DISC PLAYER DIGITAL**

INSTALLATION

Notes:

- Choose the mounting location where the unit will not interfere with the normal driving function of the driver.

- Before completly installing the unit, connect the wiring temporarily and make sure it is functioning properly.

- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.

- Consult with your Metrik dealer if installation requires the drilling of holes or other modifications of the vehicle.

- Install the unit securely and correctly to insure injure saftey of the driver and the passenger if there is a sudden stop, like an emergency stop.

- If installation angle exceeds 30˚ from horizontal, the unit might not give its optimum performance and the CD may skip

30˚

- Avoid installing the unit where it would be subject to high temperature, such as in direct sunlight, in line of vents from the heater, or where it would be subject to dust, dirt or excessive vibration.

DIN FRONT/REAR-MOUNT
This unit can be properly installed either from "Front" (conventional DIN Front-mount) or "Rear" (DIN Rear-mount installation, utilizing threaded screw holes at the sides of the unit chassis). For details, refer to the following illustrated installation methods.

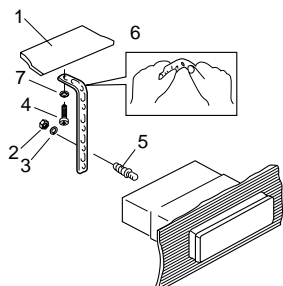# *DIN FRONT-MOUNT (Method A)*

Installation the unit

(Fig. 1)
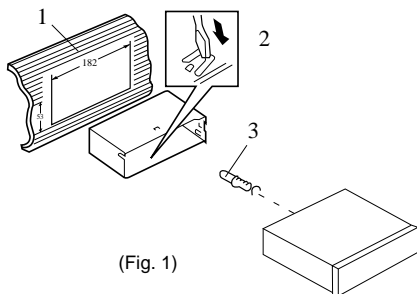
1. Dashboard

2. Holder
   After inserting the sleve into the dashboard, select the appropriate tab according to the thickness of the dashboard material and bend them inwards to secure the sleve in place.
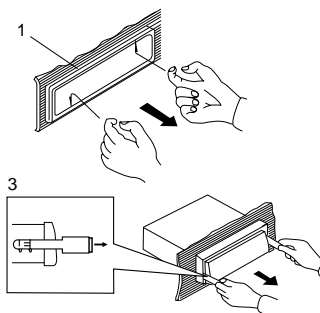
3. Rear Support Screw

(Fig. 2)

1. Dashboard
2. Nut (5mm)
3. Spring washer
4. Screw (5 x 25mm)
5. Screw
6. Strap
   Be sure to use the strap to secure the back of the unit in place. The strap can be bent by hand to the desired angle.
7. Plain washer

Removing the unit

1. Frame
2. Insert fingers into the groove in the front of frame and pull out to remove the frame. (When re-attaching the frame, point the side with a groove downwards and attach it.)
3. Lever
   Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click.
   Pulling the levers makes it possible to remove the unit from the dashboard.

DIN REAR-MOUNT (Method B)

Installation using the screw holes on the sides of the unit.
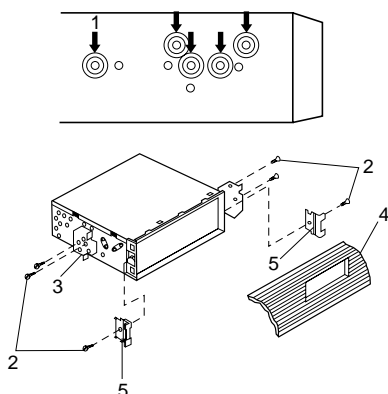
Fastening the unit to the factory radio mounting bracket.
1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side. Use either truss screws (5 x 6mm) or flush surface screws (4 x 6mm), depending on the shape of the screw holes in the bracket.
2. Screw
3. Factory radio mounting bracket
4. Dashboard or Console
5. Hook (Remove this part)
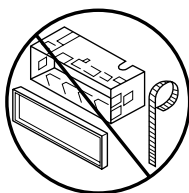
Note: The mounting box, outer trim ring, and half-sleeve are not used for this method of installation.

HOW TO REMOVE AND INSTALL THE FRONT PANEL

1. Press the release button and pull-off the front panel.
   Place the front panel into the supplied case to protect it.
2. To install the front panel, insert the right side of thepanel into the housing first,
   then press the left side in until it locks in place. If the panel is not correctly installed
   some of the function keys or the display may not function properly.

REMOVING THE FRONT PANEL

Front Panel

Release Button
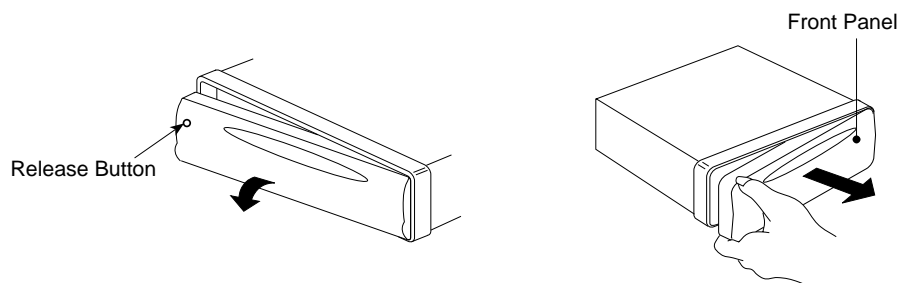
INSTALLING THE FRONT PANEL
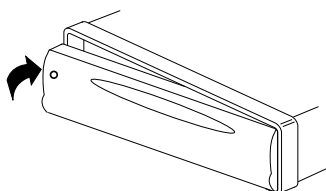
WIRING CONNECTIONS

1. All connections should be soldered and insulated with electrical tape.
2. Be sure to connect the red power input lead to + 12V power terminal after all the other leads have been properly connected.
3. Run all ground wires to a common ground.
4. **After all the connections are completed, press the "RESET" (26) button.**

ANTENNA RELAY WIRE

A yellow wire has been provided for power antenna relays. The relay will automatically activate the antenna when the unit is turned on and retract when unit is turned off.

CAUTION :
   Do not hook up the yellow wire directly to the antenna or damage may occur to the unit.

WIRING CONNECTIONS   FOR FOUR SPEAKERS SYSTEM

MAIN UNIT

ANTENNA CONNECTOR

MEMORY BACK-UP   PINK

IGNITION SWITCH (B+)   RED   CHOKE BOX

GROUND (B–)   BLACK

POWER ANTENNA   YELLOW

RCA CABLE   (GREY)   Rch RED   Lch WHITE

FRONT Lch SPEAKER   GREEN   GREEN/BLACK

REAR Lch SPEAKER   BLUE   BLUE/BLACK

FRONT Rch SPEAKER   GREY   GREY/BLACK

REAR Rch SPEAKER   WHITE   WHITE/BLACK
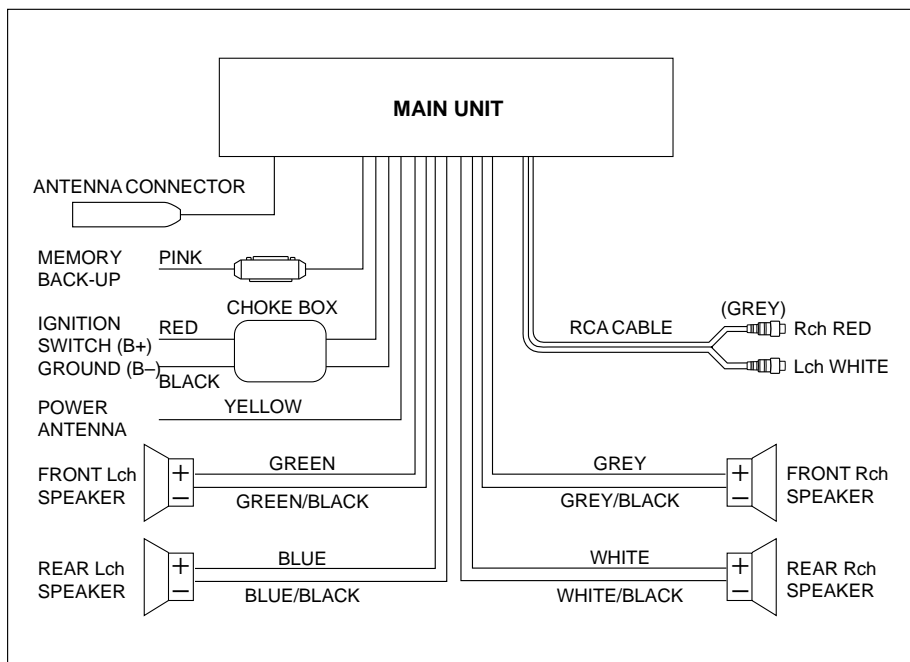
Basic Operation
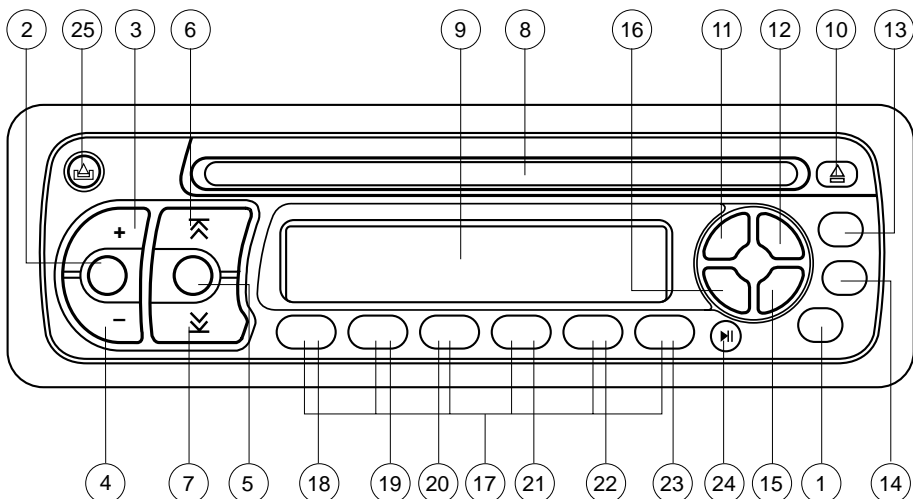
1.0 ON/OFF
Press **PWR** button (1) to turn on. Press **PWR** again to turn it off.

2.0 Select Mode
Press **SEL** button (2) to move display through volume, bass, treble, balance and fader functions. Use + (3) and – (4) buttons to adjust the selected mode. When mode has not been adjusted for 3 seconds, display returns to normal radio or CD display.

VOL (Volume) → BAS (Bass) → TRE (Treble) → BAL (Balance) → FAD (Fader)

3.0 Volume
Adjust volume by pressing + (3) or – (4) button.

4.0 Bass
4.1 Press **SEL** button (2) two times.
4.2 Adjust Bass level using + (3) or – (4) button.

5.0 Treble
5.1 Press **SEL** button (2) three times.
5.2 Adjust Treble level using + (3) or – (4) button.

6.0 Balance
6.1 Press **SEL** button (2) four times.
6.2 Adjust sound balance left and right using + (3) or – (4) button.

7.0 Fader
7.1 Press **SEL** button (2) five times.
7.2 Adjust sound balance front and rear using + (3) or – (4) button.

8.0 Mute
Press **MUTE** (13) to silence the receiver. Press again to resume listening.

9.0 Set the Clock
10.1 Press and hold **DSP** button (11) for three seconds until the display flashes.
10.2 Press ⩔ (7) to change hours, ⩓ (6) to change minutes.

10.0 Release
Press **REL** button (25) until "tack" sound is heard, then the left-hand side of the panel will be ejected.

11.0 Reset Button Function
RESET button (26) is placed on the housing and must be activated with either a ball-point pen or thin metal object. The **RESET** button (26) is to be activated for the following reasons:
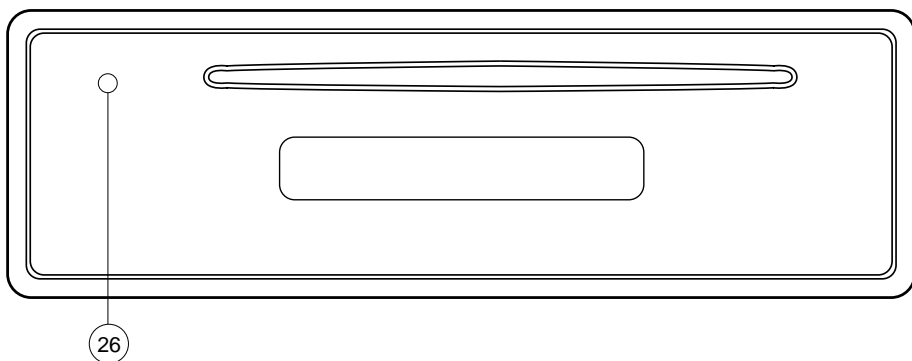11.1 Initial installation of the unit when all wiring is completed.
11.2 All the function button didn't operate
11.3 Error symbol on the display.
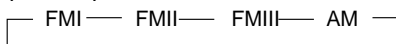
12.0 Remote Sensor (Optional)
For remote control version of unit, there is a remote sensor behind the lens to receive the signal commands from remote handset.

(26)

Radio Operation

1.0 Select a Band
Press **BND** button (5) to change between three FM bands and AM/LW bands.
Each band stores up to six preset stations.

```
┌─ FMI ── FMII── FMIII── AM ─┐
```

2.0 Select a Station
Touch a **TUNE** button ⌄ (7) or ⌃ (6) for less than two seconds to move radio
frequency number down or up on step.
Hold a **TUNE** button ⌄ (7) or ⌃ (6) for more than two seconds to seek the next
clear station.

3.0 Preset Stations
Six number buttons (17) store and recall stations for each band.

3.1 Store a station:
3.1.1 Select a band (5) (if needed).
3.1.2 Select a station
3.1.3 Hold a preset button for three seconds.

3.2 Recall a station:
3.2.1 Select a band (5) (if needed).
3.2.2 Press a preset button to select stored station.

4.0 Automatically Store Stations
4.1 Press and release **AMS** button (15) immediately to scan the programs. During
the preset scanning, it will stop at each program for ten seconds and the
number of the channel being scanned flashes on the display. If the signal
strength is lower than auto seeking threshold level, it will skip that preset
station. To stop the scan operation, press either the **AMS** button (15) again
or anyone of the memory button.
4.2 Press **AMS** button (15) button for more than 2 seconds to enable auto store
function. If less than six stations are found, the operation will automatically
stop. Auto storing follows the preset memory from M1 to M6 as soon as each
corresponding auto store is completed.

5.0 LOC (For LO/DX Version Only)
Press the LOC button (12) to select between local and distant stations when
tuning.

LOUD (For Loudness Version Only)
Press the LOUD button (12) to reinforce the bass especially when listening at low
volume level, and the digital display will indicate "LOUD". Press it again to release
this mode

6.0 MONO/ STEREO
Select stereo or monaural (Mono reception for radio stations) (14). You can
sometimes improve reception of distant stations by selecting mono operation.

CD Player Operation

1.0 Insert and Eject CD
Insert a CD into the loader slot. The CD will begin to play.
Press ⏏ (eject) (10) to stop CD play and eject the CD. The Receiver
automatically switches to radio operation.

2.0 Skip Tracks
Press **TUNE** ⩔ (7) or ⩓ (6) to advance CD to next track. Track numbers show
on display.

3.0 Pause CD
During CD player operation, press ►ǁ button (24) pause CD play. **"PAUS"**
appears in the display. Press again to resume play.

4.0 Fast Forward and Fast Reverse
Hold **TUNE** ⩔ (7) or ⩓ (6) to fast reverse or fast forward. CD play starts from
when you release the button.

5.0 Intro: Preview all Tracks
Press **SCN** (18) to play first ten seconds of each track on current CD. Press
again to stop intro and listen to track.

6.0 Repeat the Same Track
Press **RPT** (19) to continuously repeat the same track. Press again to stop
repeat.

7.0 Random: Play all Tracks
Press **RDM** (21) to play all tracks on CD in random order one time. Press again
to stop random play.

8.0 Repeat Selection (RPT A-B)
The Repeat A-B function allows you to continuously repeat a selection of music.
8.1 Press **RPT A-B** (20) to set the beginning point (A).
8.2 Press **RPT A-B** (20) again to set the end point (B).
The chosen selection of music will repeat over and over until RPT A-B is pressed
again.

9.0 Program CD Tracks
Use Program function to select up to 24 CD tracks to play in any order. Program
works by allowing you to select a track number for each spot in the playing
sequence. A CD must be inserted to use Program.
9.1 Press **TUNE** ⩔ (7) or ⩓ (6) to choose track number.
9.2 Press **MEM/CLR** (23) to enter track number into memory. Display shows next
    track number in sequence. Continue (up to 24 times) for all desired tracks.
9.3 Press **PGM** (22) to play CD in programmed order.
Note:
* Driving on bumpy roads may cause CD player to skip. A short break-in period
  will improve performance. **Skipping does not damage CDs in any way**.
* Moisture and high humidity can cause malfunction of CD player. Turn on
  vehicle heater and allow moisture to evaporate before use.
* Do not expose CD player to extremely high or low temperatures.
* Do not drive with ejected CD in slot.

SPECIFICATION

GENERAL

Power Supply Requirements	:	DC 12 Volts, Negative Ground ONLY
Chassis Dimensions	:	178 (W) X 155 (D) X 50 (H)
Tone Controls		
- Bass (at 100 Hz)	:	+10 dB/–10 dB
- Treble (at 10 KHz)	:	+10 dB/–10 dB
Maximum Output Power	:	25W X 4 (ch)

CD PLAYER

Signal to Noise Ratio	:	< 60 dB
Channel Separation	:	< 60 dB
Frequency Response	:	20 Hz - 20 KHz

RADIO

		FM
Frequency Coverage	:	87.5 to 107.9 MHz
IF	:	10.7 MHz
Sensitivity (S/N = 30 dB)	:	3 uV
Stereo Separation	:	> 30 dB

		AM
Frequency Coverage	:	530 to 1710 KHz
IF	:	450 KHz
Sensitivity (S/N = 20 dB)	:	32 dBu

TROUBLE SHOOTING

Before going through the check list, check all wiring connections. If any of the problems persist after check list has been completed, consult your Metrik dealer.

Symptom	Cause	Solution
No power.	The car ignition is not on.	If the power supply is properly connected to the car accessory terminal, switch the ignition key to "ACC".
	The fuse is blown.	Replace the fuse.
Disc cannot be loaded or ejected.	Presence of CD disc inside the player.	Remove the disc in the player, then put a new one.
	Inserting the disc in reverse direction.	Insert the compact disc with the label facing upward.
	Compact disc is extremely dirty or detective disc.	Clean the disc or try to play a new one.
	Temperature inside the car is too high.	Cool off or until the ambient temperature return to normal.
	Condensation.	Leave the player off for an hour or so, then try again.
No sound.	Volume is in minimum.	Adjust volume to a desired level.
	Wiring is not properly connected.	Check wiring connection.
The operation keys do not work.	The built-in microcomputer is not operating properly	Press the RESET button. Front panel is not properly locked in place.
CD skips.	The installation angle is more than 30 degrees.	Adjust the installation angle to less than 30 degrees.
	The disc is extremely dirty or is defective.	Clean the compact disc. Then try to play a new one.
The radio does not work. The radio station automatic selection does not work.	The antenna cable is not connected. The signals are too weak.	Insert the antenna cable firmly. Select a station manually.

LIMITED ONE YEAR WARRANTY

This warranty shall be in effect for a period of one year from the date of the first consumer purchase. This warranty is valid during the warranty period providing that proof of date of purchase from an authorized dealer is presented whenever warranty service is required.

To receive service for this product return it to the Metrik dealer from whom it was purchased and such dealer will arrange for service. If shipment of the product is required, it should be packed securely. The original dated bill of sale, or a legible copy, must be included with the product as proof of warranty coverage.

Metrik will pay for all labor and material expenses required to repair the product, only. Labor expense for the removal and installation of the product is the sole responsibility of the consumer. If the product is shipped, the consumer must prepay the initial shipping charge to us; Metrik will pay the return shipping charges to the consumer.

Except as otherwise specified, this warranty covers all defects in material and workmanship. The following are not covered: damage resulting from accident, misuse, abuse, neglect, product modification, improper installation, incorrect line voltage, unauthorized repair or failure to follow instructions supplied with the product, damage occurring during shipment (claims must be filed with the carrier), elimination of car static or other electrical interferences, any product purchased outside of North America or on which the serial number has been defaced, modified or removed.

All implied or statutory warranties and conditions, including warranties or conditions of merchantability, fitness for particular purposes and non-infringement are limited in duration to the length of this warranty.

Metrik's liability is limited to the repair or replacement, at our option, of any defective product and shall not include incidental or consequential economic damages of any kind. Some states or provinces have differing limitations. This warranty gives you specific rights and you may also have other rights, which vary depending of the state or province in which you reside.

METRIK MOBILE ELECTRONICS

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